

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 November 2001 (22.11.2001)

PCT

(10) International Publication Number
WO 01/88652 A3

(51) International Patent Classification⁷: **H01M 10/46.**
H01R 13/74, G06F 13/14, 13/20

(21) International Application Number: **PCT/IL01/00439**

(22) International Filing Date: **17 May 2001 (17.05.2001)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
136206 17 May 2000 (17.05.2000) **IL**

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(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

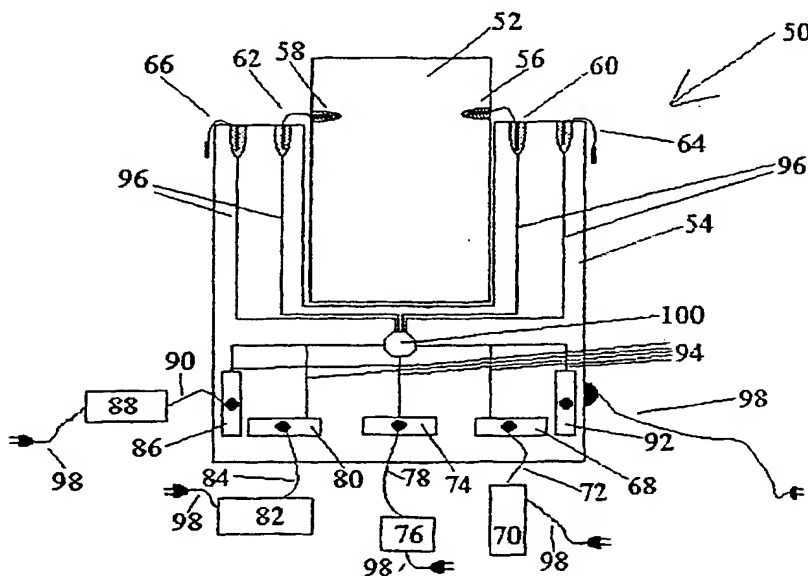
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

[Continued on next page]

(54) Title: **MODULAR DEVICE ORGANIZER**



(57) Abstract: A modular-device organizer (54) which provides individual communication between a portable instrument (52) having a fixed number of computer ports (56, 58) and a plurality of peripheral devices; thereby providing facile organization to the plurality of devices when in communication with the portable instrument, while not restricting the use or functioning of the instrument as an otherwise portable article. The organizer includes a support structure; at least one dock plug (60), arranged to communicate with at least one computer port (56); at least two dock ports (68, 74), arranged to communicate with at least two peripheral devices (70, 76); and a controller (100), in communication with the at least two ports and the at least one plug selectably provides communication between any one of the at least two ports and the at least one plug.



(88) Date of publication of the international search report:
11 April 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL01/00489

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01M 10/46; H01R 13/74; G06F 13/14, 13/20

US CL : Please See Extra Sheet.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 710/8, 10, 15, 18; 320/116, 119; 439/247, 553; 379/9, 15.01, 33, 43

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST

search terms: modular organizer, dock plug, dock port, switch port plug, plurality ports with single plug

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,931,688 A (HASZ et al) 03 August 1999, abstract and col. 3 lines 10-67.	1-29
A, E	US 6,263,381 B1 (FREADMAN) 17 July 2001, abstract and col. 1 lines 45-67.	1-29
A	US 5,909,480 A (REYNAUD et al) 01 June 1999, abstract and col. 6 lines 31-63.	1-29
Y	US 5,426,450 A (DRUMM) 20 June 1995, abstract and col. 9 lines 52-68.	1-29

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents.	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 13 NOVEMBER 2001	Date of mailing of the international search report 21 DEC 2001
Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 805-9230	Authorized officer THOMAS C. LEE Telephone No. (703) 805-9717

INTERNATIONAL SEARCH REPORT

International application No.

PCT/IL01/00439

A. CLASSIFICATION OF SUBJECT MATTER:

US CL :

710/S, 10, 15, 1S; 320/116, 119; 439/247, 553; 379/9, 15.01, 33, 43

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 November 2001 (22.11.2001)

PCT

(10) International Publication Number
WO 01/88652 A2

(31) International Patent Classification⁷: **G06F**

(21) International Application Number: **PCT/IL01/00439**

(22) International Filing Date: **17 May 2001 (17.05.2001)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
136206, 17 May 2000 (17.05.2000) IL

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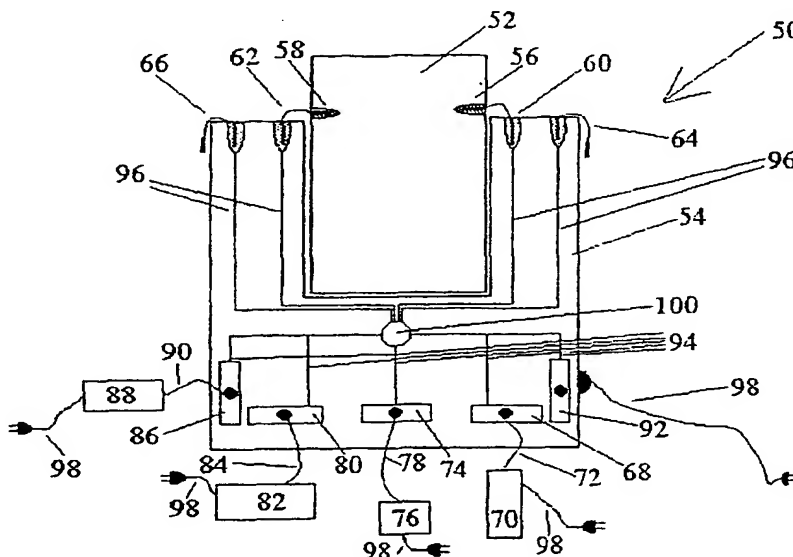
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW). Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM). European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

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(54) Title: **MODULAR DEVICE ORGANIZER**



(57) Abstract: A modular-device organizer is disclosed which provides individual communication between a portable instrument having a fixed number of computer ports, on the one hand, and a plurality of peripheral devices, ostensibly greater in number than the fixed number of computer ports, on the other hand; thereby providing facile organization to the plurality of devices when in communications with the portable instrument, while not restricting the use or functioning of the instrument as an otherwise portable article. The organizer includes: a support structure; at least one dock plug, arranged to communicate with at least one computer port; at least two dock ports, arranged to communicate with at least two peripheral devices; and a controller, in communication with the at least two ports and the at least one plug selectably provides communication between any one of the at least two ports and the at least one plug.

WO 01/88652 A2



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Modular Device Organizer

FIELD OF THE INVENTION

The present invention relates generally to docking stations and in particular to a docking station that provides individual communication between a docked computerized instrument and a plurality of devices.

BACKGROUND OF THE INVENTION

With the advent of microelectronics, generation after generation of miniature computers have been introduced into the marketplace. Recently these devices include palm-sized computers, pocket-sized personal computers, handheld packages of arcade games, and even mobile telephone units which include therein non-communications functions such as calculator, organizer, and even arcade games. Historically, whenever the introduction of a miniature computer has captured a significant market, shortly thereafter this market is targeted to consider compatible modular peripheral devices.

Since, by definition, the criteria for a miniature computer includes small size, light weight, and low power consumption, these miniature computers are rarely fitted with more than one port for inter-device communications. Therefore, the most common scenarios for interfacing with such devices are either plugging in each peripheral device on an as needed basis to the scarce single port resource, or plugging a controller into the available port and then connecting a plurality of peripheral devices into the controller. While the use of a controller solves the problem of interconnecting the miniature computer to multiple peripherals, this solution is hardly facile. The once elegant miniature computer is transformed into a central component of a generally disorganized collection of peripheral plugs and cables.

Partial solutions have been provided by enabling subsequent production of the respective popular miniature computer with a built-in controller and a plurality of ports for peripheral devices. Unfortunately, these very additions defeat the initial design criteria of the miniature computer; and the resultant disorganization from

interconnecting the miniature computer to multiple peripheral devices remains. An optional docking station then generally addresses this disorganization; which generally completes the degradation of the miniature computer into a virtually immobile workstation.

There remains a need in the art for an elegant intermediary solution which will maintain the integrity of the miniature computer with its basic design criteria and which will provide a facile organization for using a plurality of peripheral devices therewith.

ADVANTAGES, OBJECTS AND BENEFITS OF THE INVENTION

Technical Issues: Generally, the present invention extends the benefits of a docking station to miniature computer instruments that were developed to operate in less dynamic and less complex operating environments. More specifically, for a plurality of peripheral devices with the central miniature computer instrument, the present invention simultaneously provides inter-device data communications facilities, plug and socket respective compatibility, and spatial organization for the instrument, the peripheral devices, and any optional connective cables.

Ergonomic Issues: The support structure of the present invention temporarily houses the miniature computer instrument in a position whereby essential interactive elements remain facile and accessible; for example, data-entry keypad and display are held at a comfortable angle, to allow easy data entry and direct viewing.

Economic Issues: Generally, the present invention allows the miniature computer instrument to be used for two broad independent functions. Firstly, the present invention allows the miniature computer instrument to be easily integrated into a multi-peripheral device system. Secondly, the present invention allows the miniature computer instrument to be easily separated from the multi-peripheral device system, thereby retaining the original capacities and purposes of the

miniature computer instrument. This dual use capability saves the user from the complexity and expense of needing two or more otherwise identical miniature computer instruments.

NOTICES

Numbers, alphabetic characters, and roman symbols are designated in the following sections for convenience of explanations only, and should by no means be regarded as imposing particular order on any method steps. Likewise, the present invention will forthwith be described with a certain degree of particularity, however those versed in the art will readily appreciate that various modifications and alterations may be carried out without departing from either the spirit or scope, as hereinafter claimed.

Furthermore, in the context of the present invention, designation of a plug, port, socket, or interfaces are for convenience of appreciating their respective examples. Intrinsically, a plug, port, socket, and interface are simply examples of substantially mutually compatible mechanical-type connections that are used for transfer of data, commands, controls, or other electronic communications. It is likewise within the scope and spirit of these connections to allow proximate wireless communications, and the like.

SUMMARY OF THE INVENTION

The present invention seeks to provide individual communication between a portable instrument that has a fixed number of computer ports, on the one hand, and a plurality of peripheral devices, ostensibly greater in number than the fixed number of computer ports, on the other hand. Furthermore, the present invention seeks to provide a facile organization to the plurality of devices when in communications with the portable instrument, while not restricting the use or functioning of the instrument as an otherwise portable article.

There is thus provided, in accordance with the present invention, a modular-device organizer which includes: a support structure, for temporarily housing a computerized instrument that has at least one computer port; at least one dock plug, arranged to communicate with the at least one computer port; at least two dock ports, arranged to communicate with at least two peripheral devices; and a controller, in communication with the at least two dock ports and the at least one dock plug, for selectably providing communication between any one of the at least two dock ports and the at least one dock plug.

The present invention also relates to a modular-device-organizing system which includes: a portable computerized instrument that has at least one computer port; the modular-device organizer having a support structure, for temporarily housing the computerized instrument, at least one dock plug, arranged to communicate with the at least one computer port, at least two dock ports, arranged to communicate with at least two peripheral devices, and a controller, in communication with the at least two dock ports and the at least one dock plug, for selectably providing communication between any one of the at least two dock ports and the at least one dock plug; and at least two peripheral devices, in individual communication with the computerized instrument, via the controller.

Furthermore, the present invention relates to a method of providing communication between a computerized instrument having a computer port and at least two peripheral devices, the method including the following steps: **employing** a controller; **housing** the controller in a structure which temporarily houses the computerized instrument; **arranging** for communication between the controller and the computerized instrument, via the computer port; **arranging** for communication between the controller and each of the at least two peripheral devices; and **selectably providing** individual communication between any one of the at least two peripheral devices and the computerized instrument.

BRIEF DESCRIPTION OF THE FIGURES

In order to understand the invention and to see how it may be carried out in practice, embodiments including the preferred embodiment will now be described, by way of non-limiting example only, with reference to the accompanying drawings, in which:

Fig. 1 schematically illustrates a modular-device-organizing system, in accordance with a preferred embodiment of the present invention; and

Fig. 2 schematically illustrates a modular-device-organizing system, in accordance with an alternate embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

Reference is now made to Fig. 1, which schematically illustrates a modular-device-organizing system 10, in accordance with a preferred embodiment of the present invention. Modular-device-organizing system 10 includes a modular-device organizer 14, for temporarily housing a computerized instrument 12 that has a processor (not shown) and a computer port 16. Modular-device organizer 14 includes a dock plug 18, arranged to communicate with computer port 16, and a plurality of dock ports 22, 28, and 34. The communications may be accomplished using a circuit or a virtual circuit in a controller 20, such as by using circuit switching, time domain or frequency domain multiplexing, or the like. Dock port 22 is arranged to communicate with a peripheral device 24 via a cable 26. Dock port 28 is arranged to communicate with a peripheral device 30 via a cable 32. Dock port 34 is arranged to communicate with a peripheral device 36 via a cable 38. Each of peripheral devices 24, 30 and 36 includes a processor (not shown).

Preferably, modular-device organizer 14 is connected to a grid (not shown) via a cable 44. Alternatively, modular-device organizer 14 is battery-operated. Preferably, peripheral devices 24, 30, and 36 are also connected to the grid via cables 44. Alternatively, any of peripheral devices 24, 30, and 36 may be battery-operated.

Alternatively, power may be supplied from modular-device organizer 14 to any or all of the peripheral devices.

In accordance with the preferred embodiment of the present invention, modular-device organizer 14 includes a protocol controller for communication 20. Controller 20 is in communication with dock ports 22, 28 and 34 via a circuitry 40 and in communication with dock plug 18 via a wire 42. In accordance with the preferred embodiment of the present invention, controller 20 selectably provides communication between any one of dock ports 22, 28, and 34 on the one hand and dock plug 18, on the other, thus providing individual communication between any one of peripheral devices 24, 30 and 36 on the one hand, and computerized instrument 12, on the other. Additionally, in accordance with the preferred embodiment of the present invention, controller 20 selectably provides communication between any two or more of dock ports 22, 28, and 34.

Further in accordance with the preferred embodiment of the present invention, computerized instrument 52 is a palm-size personal computer or a pocket-size personal computer, having a single computer port. Additionally, in accordance with the preferred embodiment of the present invention, modular-device organizer 14 is located on a vehicle, for example, a car or a boat. Preferably, modular-device organizer 14 draws power from the vehicle power source. Alternatively, it may be battery operated. Further in accordance with the preferred embodiment of the present invention, peripheral devices 24 and 30 are any two devices of the following: a gyroscope, a compass, a global positioning system, a device containing a data base for navigational information, such as for example, road maps, or topographical maps, or a communication device for communicating navigational information, for example, road congestion, or road flooding. Furthermore, a communications device for communication navigational information may relate to a cellular communications modem for transferring data, such as by using cellular digital packet data (CDPD) protocol, or general packet radio service (GPRS) protocol or the like. Additionally, peripheral device 36 may also be any of the aforementioned navigational devices. In accordance with the preferred embodiment of the present invention, modular-device organizer 14 affords communication between a palm-size personal computer or a

pocket-size personal computer, having a single computer port, on the one hand, and at least two navigational instruments, on the other hand, to create a powerful navigational instrument.

Reference is now made to Fig. 2, which schematically illustrates a modular device organizing system 50, in accordance with an alternate embodiment of the present invention. Preferably, modular-device-organizing system 50 includes a modular-device organizer 54, for temporarily housing a computerized instrument 52 that has two computer ports 56 and 58. Modular-device organizer 54 includes four dock plugs 60, 62, 64 and 66, arranged to communicate with computer ports. Dock plug 60 is plugged into computer port 56 and dock plug 62 is plugged into computer port 58. In accordance with the present embodiment of the invention, since computerized instrument 52 has only two computer ports, dock plugs 64 and 66 are spare. Modular-device organizer 54 further includes five dock ports, 68, 74, 80, 86, and 92. Dock port 68 is in communication with a peripheral device 70, via a cable 72. Dock port 74 is in communication with a peripheral device 76, via a cable 78. Dock port 80 is in communication with a peripheral device 82, via a cable 84. Dock port 86 is in communication with a peripheral device 88, via a cable 90. In accordance with the present embodiment of the invention, dock port 92 is spare.

Preferably, modular-device organizer 54 is connected to the grid via a cable 98. Alternatively, modular-device organizer 54 is battery-operated. Preferably, peripheral devices 70, 76, 82, and 88 are connected to the grid via cables 98. Alternatively, any of peripheral devices 70, 76, 82 and 88 may be battery-operated. Alternatively, power may be supplied from modular-device organizer 54 to any or all of the peripheral devices.

In accordance with the present embodiment of the invention, modular-device organizer 54 includes a protocol-controller-for-communication 100. Controller 100 is in communication with dock ports 68, 74, 80, 86, and 92 via a circuitry 94 and in communication with dock plugs 60, 62, 64, and 66, via a circuitry 96. In accordance with the present embodiment of the invention, controller 100 selectably provides communication between any one of dock ports 68, 74, 80, and 86 on the one hand and dock plugs 60 and 62, on the other, thus providing individual communication between

any one of peripheral devices 70, 76, 82, and 88 on the one hand, and computerized instrument 52, on the other. Additionally, in accordance with the present embodiment of the invention, controller 100 selectably provides communication between any two or more of dock ports 68, 74, 80, and 86.

It will be appreciated by persons skilled in the art, that a computerized instrument such as computerized instrument 52 may have a plurality of computer ports, for example, denoted by N, and that a modular-device organizer such as modular-device organizer 54 may have a plurality of dock plugs, for example, denoted by M, and a plurality of dock ports, for example, denoted by L. In accordance with the present invention, the three numbers N, M, and L may be different from each other. Alternatively, only two of the three numbers N, M, and L may be different from each other. Alternatively, the three numbers N, M, and L may be equal to each other.

In accordance with the present invention, a computerized instrument such as computerized instrument 12 or 52 may be a palm-size personal computer. Alternatively, it may be a pocket-size personal computer. Alternatively, it may be a cellular telephone. Alternatively, it may be any of a portable music player, a portable music recorder, a portable multi-media system, a portable virtual reality game maker or any other portable instrument that has a processor.

Additionally, in accordance with the present invention, a peripheral device such as peripheral devices 24, 30, 36, 70, 76, 82, or 88 may be a printer. Alternatively or additionally, it may be a scanner. Alternatively or additionally, it may be a plotter. Alternatively or additionally, it may be a modem. Alternatively or additionally, it may be a fax machine. Alternatively or additionally, it may be a telephone. Alternatively or additionally, it may be a cellular phone. Alternatively or additionally, it may be a wireless communication interface. Alternatively or additionally, it may be a receiver. Alternatively or additionally, it may be a transmitter. Alternatively or additionally, it may be a sound card. Alternatively or additionally, it may be a speaker. Alternatively or additionally, it may be a display driver. Alternatively or additionally, it may be a display unit. Alternatively or additionally, it may be an extended memory unit. Alternatively or additionally, it may be an extended processing unit. Alternatively or additionally, it may be another device that contains a processor. By using modular-

device-organizing system 10 or 50 with any two of the aforementioned peripheral devices, the computer power of computerized instrument will be greatly enhanced.

Further in accordance with the present invention, a peripheral device may be a gyroscope. Alternatively or additionally, it may be a compass. Alternatively or additionally, it may be a global positioning system. Alternatively or additionally, it may be device containing a data base for navigational information, and a communication device for communicating navigational information. By using modular-device-organizing system 10 or 50 with any two of the aforementioned devices, the computerized instrument can be turned into a powerful navigational instrument.

Additionally, in accordance with the present invention, a peripheral device may be an amplifier or a tuner. Alternatively or additionally, it may be a tape player or a tape recorder. Alternatively or additionally, it may be a CD player or a CD recorder. Alternatively or additionally, it may be a DVD player or a DVD recorder. Alternatively or additionally, it may be a video player or a video recorder. Alternatively or additionally, it may be a video camera. Alternatively or additionally, it may be a digital camera. Alternatively or additionally, it may be a sound mixer or a video mixer. Alternatively or additionally, it may be a sound-effect device or a video-effect device. Alternatively or additionally, it may be another device associated with audio or video production. By using modular-device-organizing system 10 or 50 with any two of the aforementioned devices, the computerized instrument can be turned into a multi-media recording studio.

Further in accordance with the present invention, a peripheral device may be a virtual reality game devices, for example, a stereoscopic vision device, a motion detector, or stereophonic headphones.

It will be appreciated by persons skilled in the art, that modular-device-organizing system 10 or 50 may be combined with many other peripheral devices.

The preferred embodiment of the system relates to a modular-device-organizing navigational system which includes: a portable computerized instrument that has at least one computer port; the modular-device organizer having a support structure, for temporarily housing the computerized instrument, at least one dock plug, arranged

to communicate with the at least one computer port, at least two dock ports, arranged to communicate with at least two peripheral devices, and a controller, in communication with the at least two dock ports and the at least one dock plug, for selectably providing communication between any one of the at least two dock ports and the at least one dock plug; and at least two peripheral devices, in individual communication with the computerized instrument, via the controller. Furthermore, according to the preferred embodiment, the dock ports are configured to accept at least two navigational devices selected from the list of: a gyroscope, a compass, a global positioning system, a device containing a data base for navigational information, and a communication device for communicating navigational information.

It will be appreciated by persons skilled in the art, that the scope of the present invention is not limited by what has been specifically shown and described hereinabove, merely by way of example.

CLAIMS

1. A modular-device organizer which includes:
 - a) a support structure, for temporarily housing a computerized instrument that has at least one computer port;
 - b) at least one dock plug, arranged to communicate with said at least one computer port;
 - c) at least two dock ports, arranged to communicate with at least two peripheral devices; and
 - d) a controller, in communication with said at least two dock ports and said at least one dock plug, for selectably providing communication between any one of said at least two dock ports and said at least one dock plug.
2. A modular-device organizer according to claim 1 wherein said at least two dock ports includes a plurality of dock ports, arranged to communicate with a plurality of peripheral devices.
3. A modular-device organizer according to claim 1, wherein said support structure is arranged for temporarily housing a computerized instrument that has a first plurality of computer ports, wherein said at least one dock plug includes a second plurality of dock plugs, wherein said at least two dock ports include a third plurality of dock ports, and wherein said first, second and third pluralities may be any of equal or different in number.
4. A modular-device organizer according to claim 1, wherein said controller further provides individual communication between any one of said at least two peripheral devices and another one of said at least two peripheral devices.
5. A modular-device organizer according to claim 1, wherein said at least two dock ports are configured to accept at least two navigational devices selected from the list of:

a gyroscope, a compass, a global positioning system, a device containing a data base for navigational information, and a communication device for communicating navigational information.

6. A modular-device organizer according to claim 1, wherein said at least two dock ports are configured to accept at least two peripheral devices selected from the list of: an amplifier, a tuner, a tape player, a CD player, a DVD player, a tape recorder, a CD recorder, a DVD recorder, a video player, a video recorder, a video camera, a digital camera, a sound mixer, a video mixer, a sound-effect device, and a video-effect device.

7. A modular-device organizer according to claim 1, wherein said at least two dock ports are configured to accept at least two peripheral devices selected from the list of: a printer, a scanner, a plotter, a modem, a fax machine, a telephone, a cellular phone, a communication-embedded controller, a wireless communication interface, a receiver, a transmitter, a sound card, a speaker, a display drive, a display unit, an extended memory unit, an extended processing unit, another device that contains a processor.

8. A modular-device organizer according to claim 1, wherein said at least two dock ports are configured to accept virtual reality game devices such as any two of the following: a stereoscopic vision device, a motion detector, and stereophonic headphones.

9. A modular-device-organizing system which includes:

- a) a portable computerized instrument that has at least one computer port;
- b) a modular-device organizer having
 - i. a support structure, for temporarily housing said computerized instrument,
 - ii. at least one dock plug, arranged to communicate with said at least one computer port,
 - iii. at least two dock ports, arranged to communicate with at least two peripheral devices, and

iv. a controller, in communication with said at least two dock ports and said at least one dock plug, for selectably providing communication between any one of said at least two dock ports and said at least one dock plug; and

c. at least two peripheral devices, in individual communication with said computerized instrument, via said controller.

10. A modular-device-organizing system according to claim 9, wherein said at least two dock ports include a plurality of dock ports, arranged to communicate with a plurality of peripheral devices.

11. A system according to claim 9, wherein said at least one computer port includes a first plurality of computer ports, wherein said at least one dock plug includes a second plurality of dock plugs, wherein said at least two dock ports include a third plurality of dock ports, and wherein said first, second and third pluralities may be any of equal or different in number.

12. A system according to claim 9, wherein said controller further provides individual communication between any one of said at least two peripheral devices and another one of said at least two peripheral devices.

13. A system according to claim 9, wherein said two or more peripheral devices include two or more navigational devices and wherein said system is a navigational system.

14. A system according to claim 13, wherein said dock ports are configured to accept at least two navigational devices selected from the list of: a gyroscope, a compass, a global positioning system, a device containing a data base for navigational information, and a communication device for communicating navigational information.

15. A system according to claim 9, wherein said system is an enhanced music playing-recording system.

16. A system according to claim 15, wherein said dock ports are configured to accept at least two peripheral devices selected from the list of: an amplifier, a tuner, a tape player, a CD player, a tape recorder, a CD recorder, an amplifier, a sound mixer, a sound-effect device, speakers.

17. A system according to claim 9, wherein said two or more peripheral devices include two or more music and video playing and recording devices and wherein said system is a multi-media recording studio.

18. A system according to claim 17, wherein said dock ports are configured to accept at least two peripheral devices selected from the list of: an amplifier, a tuner, a tape player, a CD player, a video player, a DVD player, a tape recorder, a CD recorder, a DVD recorder, a video recorder, a video camera, a digital camera, a sound mixer, a video mixer, a sound-effect device, and a video-effect device.

19. A system according to claim 9, wherein said system is an enhanced computer workstation.

20. A system according to claim 19, wherein said dock ports are configured to accept at least two peripheral devices selected from the list of: a printer, a scanner, a plotter, a modem, a fax machine, a telephone, a cellular phone, a communication-embedded controller, a wireless communication interface, a receiver, a transmitter, a sound card, a speaker, a display drive, a display unit, an extended memory unit, an extended processing unit, another device that contains a processor.

21. A system according to claim 9, wherein said system is virtual reality computer play station, and said at least two dock ports are configured to accept virtual reality game devices such as any two of the following: a stereoscopic vision device, a motion detector, and stereophonic headphones.

22. A method of providing communication between a computerized instrument having a computer port and at least two peripheral devices, said method including the following steps:

- a) employing a controller;
- b) housing the controller in a structure which temporarily houses the computerized instrument;
- c) arranging for communication between the controller and the computerized instrument, via the computer port;
- d) arranging for communication between the controller and each of the at least two peripheral devices; and
- e) selectably providing individual communication between any one of the at least two peripheral devices and the computerized instrument.

23. A method according to claim 22, wherein a computer port includes a plurality of computer ports, and wherein at least two peripheral devices include a plurality of peripheral devices, greater in number than the plurality of computer ports.

24. A method according to claim 22, and further including selectably providing individual communication between any one of said at least two peripheral devices and another one of said at least two peripheral devices.

25. A method according to claim 22, wherein said step of selectably providing individual communication between any one of the at least two peripheral devices and the computerized instrument includes selectably providing individual communication between any one of at least two navigational devices selected from the list of a gyroscope, a compass, a global positioning system, a device containing a data base for navigational information, and a communication device for communicating navigational information.

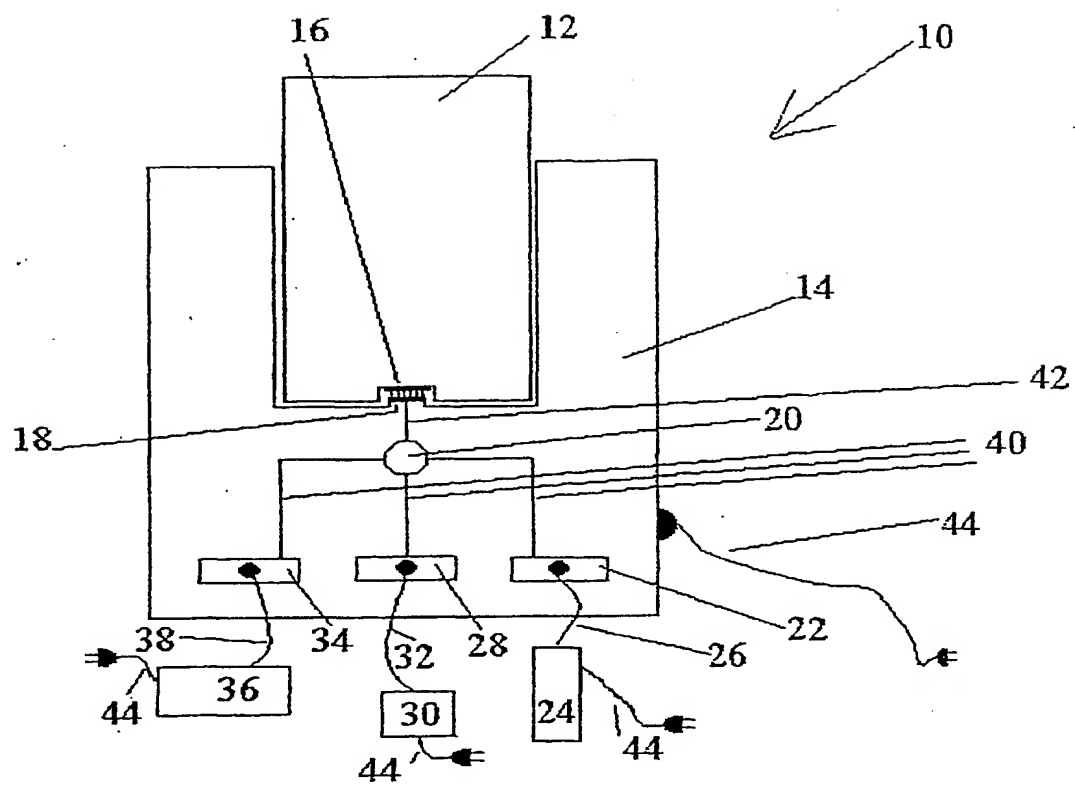
26. A method according to claim 22, wherein said step of selectably providing individual communication between any one of the at least two peripheral devices and the computerized instrument includes selectably providing individual communication between any one of at least two peripheral devices selected from the list of a tape player, a CD player, a DVD player, a tape recorder, a CD recorder, a DVD recorder, a video player, a video recorder, a video camera, a digital camera, a sound mixer, a video mixer, a sound-effect device, a video-effect device.

27. A method according to claim 22, wherein said step of selectably providing individual communication between any one of the at least two peripheral devices on the one hand, and the computerized instrument on the other hand, includes selectably providing individual communication between any one of the at least two peripheral devices selected from the list of a printer, a scanner, a plotter, a modem, a fax machine, an extended memory unit, an extended processing unit, a communication-embedded controller, a wireless communication interface, a receiver, a trainmaster, a sound card, a speaker, a display drive, a display unit, another device that contains a processor, on the one hand and the computerized instrument, on the other hand.

28. A method according to claim 22, wherein said step of selectably providing individual communication between any one of the at least two peripheral devices and the computerized instrument includes selectably providing individual communication between any one of the at least two peripheral devices selected from the list: a stereoscopic vision device, a motion detector, and stereophonic headphones.

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FIG. 1



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FIG. 2

